

AMENDMENTS

In the Specification:

On page 10, beginning at line 9, please replace the paragraph with the following:

One important ~~features~~feature of assembly 100 is stopper ~~103~~102 which provides for positive seating of fastener 101 against a tissue, while another important feature is the releasable holding of fastener 101 and the self-closing action that causes the fastener to assume a shape useful for compressing tissue. The fastener 101 is thus held in one configuration suitable for delivering the fastener to a tissue site through an opening such as a piercing and, upon release, transform towards a second configuration suitable for compressing the tissue. One embodiment of the inventive fastener uses material that can repeatably deform between the two configurations. The fastener can thus be fabricated or heat treated to assume the relaxed, closed configuration, and can be deformed into the open configuration, and upon delivery will conform to the closed configuration.

On page 12, beginning at line 9, please replace the paragraph with the following:

Returning now to a specific embodiment of the present invention, Fig. 2A – C show a fastener 200 held by holder 240 (as in perspective view Fig. 2A and distal end view Fig. 5), being removed from the holder (Fig. 2B) and fully removed from the holder (Fig. 2C). Fig. 3 shows a cross-sectional view 3-3 of Fig. 2A, showing fastener 200 engaged within holder 240, and Fig. 5 is a distal end view 5-5, also of Fig. 2A. Fastener 200 comprises a pair of clips 231 and 233 each including one of the pair of stopper or distal arms 201, and one of the pair of terminator or

proximal arms 203. Each of arms 201 and 203 has a free end, as in stopper or distal ends 206 and terminator or proximal ends 204, and is connected to other arms through a connecting stem 205. Terminator arms 203 are in general flexible while stopper arms 201 may be flexible and are adapted to transfer distally directed forces through fastener 101 to the terminator arms. The range of motion of terminator arms 203 are best considered in relation to Fig. 2 which shows the removal of fastener 200 from holder 240. Holder 240 includes a generally cylindrical tube 207 having an inner surface 301 forming a lumen ~~207~~209 at distal end 211 for accepting fastener 101. Terminator arms 203 are bendable to allow a change in shape between open configuration 210 and closed configuration 220. Thus Fig. 2A shows the pair of terminator arms 203 in open configuration 210 placed within lumen 209. Terminator arms 203 lie within tube 207, while stopper arms 201 protrude radially away from holder 240.

On page 14, beginning at line 6, please replace the paragraph with the following:

~~Thus one~~Thus, one method of using a nitinol alloy as material for the inventive fasteners is to choose an alloy having a transformation temperature A_f that is just below the temperature at which the fastener is to be used in a tissue, thus permitting, for example, from as a superelastic material, permitting elastic deformation over a very wide range of shape. A fastener 101 is heat treated, while maintained in what will become the “relaxed configuration” to produce a fastener that is predominantly austenite. Fastener 101 is then cooled to a temperature at which at least a portion of the fastener undergoes the ~~change~~ phase change to martensite, is deformed and inserted into holder 103, and warmed to above the A_f temperature. Upon warming, fastener 101 attempts to return to the relaxed configuration, and thus the transition arms are forced against the interior surface of holder 103. The fastener 101 will then stay coupled to holder 103 until pulled

apart as described ~~subsequently below~~. For normal surgical procedures, the fastener should have a transition temperature slightly below body temperature, while for procedures performed at lower temperatures, a lower transition temperature may be appropriate. For ~~example~~ ~~with example, with~~ a stopped heart condition where cold cardioplegia has been injected for temporary paralysis of the heart ~~tissue at tissue~~, a transition temperature as low as 8-10 degrees Celsius may be useful.

On page 21, beginning at line 12, please replace the paragraph with the following:

The second alternative embodiment of a fastener 1200 is shown in Figs. 12A – 12B, where Fig. 12A is a view of the fastener in a closed configuration 1220, and Fig. 12B is a view of the fastener as it clips tissue in a fastened configuration 1230. Dual fastener 1200 has stopper ends 1206 that more closely approach terminator edge 1211 than terminator ends 1204. This configuration provides a higher compressive force than does the fastener 200 by having a closed configuration ~~220C~~ 1220 that traps tissue T1 and T2 more tightly between the stopper arms 1201 and terminator arms 1203.

On page 21, beginning at line 26, please replace the paragraph with the following:

A fourth alternative embodiment of a fastener 1400 is shown in Fig. 14 in a closed configuration 1420. Fastener 1400 and the subsequent embodiments differ from the previous embodiments in that the clips 231 and 233 are attached by a cross member 1410, which ~~bridging bridges~~ distal arms 1401, as opposed to the embodiment of Fig. 2, for example, in which

clips 231 and 233 have a common connecting stem 205. Since connecting stem 205 structurally ~~transfer~~transfers the forces of both clips 231 and 233 in embodiments having a connecting stem, the stresses in stem 205 include the stress associated with each of the clips. The use of a cross member 1410 isolates the stress in each of clips 231 and 233, allowing for greater unyielding displacements of individual clips 231 and 233. In addition to the inclusion of cross member 1410, clips 231 and 233 apply forces asymmetrically. Specifically, proximal ends 1403' and 1403'' differ in length, with distal end 1404' of clip 231 extending more distally than does proximal end 1404'' of clip 233. Clip 231 of the fourth embodiment 1400 is thus configured to compress a greater surface ~~are~~area of tissue (not shown) or to provide a greater tissue compressive force.